

**Asymmetric Optimization of Diesel Propulsion and Power Generation Systems****ABSTRACT**

As funding for governmental projects reduces, the End User is looking towards equipment manufacturers to maintain system expenditure (CAPEX) while reducing operational through life costing (OPEX). This presentation identifies different methods of achieving those results using predominantly existing technology while exploring the use of emerging concepts and evaluating current paradigms. In particular:

- The use of high speed, highly turbocharged engines in CODAD configurations
- The complimentary use of electric PTI for operations involving loitering (CODELOD / CODELAD)
- Variable speed power generation, directly coupled electric motors and variable ratio reduction gears
- Asymmetrical use of propulsion engines and ship service diesel generators